

## Subpart E—Standards of Performance for Incinerators

### § 60.50 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to each incinerator of more than 45 metric tons per day charging rate (50 tons/day), which is the affected facility.

(b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

[42 FR 37936, July 25, 1977]

### § 60.51 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) *Incinerator* means any furnace used in the process of burning solid waste for the purpose of reducing the volume of the waste by removing combustible matter.

(b) *Solid waste* means refuse, more than 50 percent of which is municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass and rock.

(c) *Day* means 24 hours.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 20792, June 14, 1974]

### § 60.52 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this part shall cause to be discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of 0.18 g/dscm (0.08 gr/dscf) corrected to 12 percent CO<sub>2</sub>.

[39 FR 20792, June 14, 1974]

### § 60.53 Monitoring of operations.

(a) The owner or operator of any incinerator subject to the provisions of this part shall record the daily charging rates and hours of operation.

### § 60.54 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standard in § 60.52 as follows:

(1) The emission rate ( $c_{12}$ ) of particulate matter, corrected to 12 percent CO<sub>2</sub>, shall be computed for each run using the following equation:

$$c_{12} = c_s (12/\%CO_2)$$

where:

$c_{12}$ =concentration of particulate matter, corrected to 12 percent CO<sub>2</sub>, g/dscm (gr/dscf).

$c_s$ =concentration of particulate matter, g/dscm (gr/dscf).

%CO<sub>2</sub>=CO<sub>2</sub> concentration, percent dry basis.

(2) Method 5 shall be used to determine the particulate matter concentration ( $c_s$ ). The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).

(3) The emission rate correction factor, integrated or grab sampling and analysis procedure of Method 3B shall be used to determine CO<sub>2</sub> concentration (%CO<sub>2</sub>).

(i) The CO<sub>2</sub> sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the CO<sub>2</sub> traverse points may be reduced to 12 if Method 1 is used to locate the 12 CO<sub>2</sub> traverse points. If individual CO<sub>2</sub> samples are taken at each traverse point, the CO<sub>2</sub> concentration (%CO<sub>2</sub>) used in the correction equation shall be the arithmetic mean of all the individual CO<sub>2</sub> sample concentrations at each traverse point.

(ii) If sampling is conducted after a wet scrubber, an "adjusted" CO<sub>2</sub> concentration [(%CO<sub>2</sub>)<sub>adj</sub>], which accounts for the effects of CO<sub>2</sub> absorption and dilution air, may be used instead of the CO<sub>2</sub> concentration determined in this paragraph. The adjusted CO<sub>2</sub> concentration shall be determined by either of the procedures in paragraph (c) of this section.

(c) The owner or operator may use either of the following procedures to determine the adjusted CO<sub>2</sub> concentration.

(1) The volumetric flow rates at the inlet and outlet of the wet scrubber and the inlet CO<sub>2</sub> concentration may be used to determine the adjusted CO<sub>2</sub> concentration [(%CO<sub>2</sub>)<sub>adj</sub>] using the following equation:

$$(\%CO_2)_{adj} = (\%CO_2)_{di} (Q_{di}/Q_{do})$$

where:

(%CO<sub>2</sub>)<sub>adj</sub>=adjusted outlet CO<sub>2</sub> concentration, percent dry basis.

(%CO<sub>2</sub>)<sub>di</sub>=CO<sub>2</sub> concentration measured before the scrubber, percent dry basis.

$Q_{di}$ =volumetric flow rate of effluent gas before the wet scrubber, dscm/min (dscf/min).

$Q_{do}$ =volumetric flow rate of effluent gas after the wet scrubber, dscm/min (dscf/min).

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(i) At the outlet, Method 5 is used to determine the volumetric flow rate ( $Q_{do}$ ) of the effluent gas.

(ii) At the inlet, Method 2 is used to determine the volumetric flow rate ( $Q_{di}$ ) of the effluent gas as follows: Two full velocity traverses are conducted, one immediately before and one immediately after each particulate run conducted at the outlet, and the results are averaged.

(iii) At the inlet, the emission rate correction factor, integrated sampling and analysis procedure of Method 3B is used to determine the  $\text{CO}_2$  concentration  $[(\% \text{CO}_2)_{di}]$  as follows: At least nine sampling points are selected randomly from the velocity traverse points and are divided randomly into three sets, equal in number of points; the first set of three or more points is used for the first run, the second set for the second run, and the third set for the third run. The  $\text{CO}_2$  sample is taken simultaneously with each particulate run being conducted at the outlet, by traversing the three sampling points (or more) and sampling at each point for equal increments of time.

(2) Excess air measurements may be used to determine the adjusted  $\text{CO}_2$  concentration  $[(\% \text{CO}_2)_{adj}]$  using the following equation:

$$(\% \text{CO}_2)_{adj} = (\% \text{CO}_2)_{di} [(100 + \% \text{EA}_i) / (100 + \% \text{EA}_o)]$$

where:

$(\% \text{CO}_2)_{adj}$  = adjusted outlet  $\text{CO}_2$  concentration, percent dry basis.

$(\% \text{CO}_2)_{di}$  =  $\text{CO}_2$  concentration at the inlet of the wet scrubber, percent dry basis.

$\% \text{EA}_i$  = excess air at the inlet of the scrubber, percent.

$\% \text{EA}_o$  = excess air at the outlet of the scrubber, percent.

(i) A gas sample is collected as in paragraph (c)(1)(iii) of this section and the gas samples at both the inlet and outlet locations are analyzed for  $\text{CO}_2$ ,  $\text{O}_2$ , and  $\text{N}_2$ .

(ii) Equation 3B-3 of Method 3B is used to compute the percentages of excess air at the inlet and outlet of the wet scrubber.

[54 FR 6665, Feb. 14, 1989, as amended at 55 FR 5212, Feb. 14, 1990]